AMENDMENTS TO THE CLAIMS

Claims 1-57

Claim 58 (Currently Amended)   The semiconductor manufacturing system according to Claim ~~56~~ 63, wherein said controller is configured to change the control program ~~of the controller is changed~~ while the ~~a~~ temperature is in a constant state with ~~same as a state of which~~ the reaction chamber ~~is~~ in a standby state.

Claim 59 (Currently Amended)   The semiconductor manufacturing system according to Claim ~~56~~ 63, wherein said controller is configured to change the control program during the standby event for charging the substrate to the boat ~~is determined as the timing for changing the control program~~.

Claim 60 (Currently Amended)   The semiconductor manufacturing system according to Claim ~~56~~ 63, wherein said controller is configured to change the control program during the boat-up event for loading the boat in a reactor by raising an elevator ~~is determined as the timing for changing the control program~~.

Claim 61 (Currently Amended)   The semiconductor manufacturing system according to Claim ~~56~~ 63, wherein said controller is configured to change the control program during a boat-down event for drawing the boat from the reactor by lowering the elevator ~~is determined as the timing for changing the control program~~.

Claim 62 (Currently Amended)   The semiconductor manufacturing system according to Claim ~~56~~ 63, wherein said controller is configured to change the control program during a standby event for discharging the substrate from the boat ~~is determined as the timing for changing the control program~~.

Claim 63 (New)   A semiconductor manufacturing system for producing a substrate to be treated, said system comprising:

a controller for controlling operation of the semiconductor manufacturing system by carrying out a control program that is stored in memory, said controller being configured to determine a time when a previous downloaded control program can be changed, temporarily store a new control program received through a communications circuit in a buffer, and store the new control program received through the communications circuit and stored in the buffer in memory so as to be executable by a processor in response to said controller determining the time when the previous control program can be changed or in response to an instruction, wherein said previous control program and said new control program are operable to carry out the following events:

a standby event charging a substrate in a boat;

a boat-up event loading the boat in a reactor by raising an elevator;

a ramping-up event gradually raising a temperature;

a process event forming a film on the substrate;

a ramping-down event gradually decreasing the temperature;

a boat-down event drawing the boat from the reactor by lowering the elevator; and

a standby event discharging the substrate from the boat;

wherein said controller is further configured to determine that the time at which the control program can be changed is not the process event forming a film on the substrate; and

wherein said controller is further configured to hold prior data that was used to carry out the previous control program so that the prior data is used in carrying out the new control program.

Claim 64 (New)   A semiconductor manufacturing system for producing a substrate to be treated, said system comprising:

a boat for having a substrate charged therein;

a reactor for processing the substrate and forming a film on the substrate;

an elevator for raising and loading said boat into said reactor;

a processor for carrying out a control program;

a buffer for temporarily storing the control program;

memory for storing the control program so that the control program can be carried out by said processor;

a communications circuit for receiving a new control program;

a controller for controlling operation of the semiconductor manufacturing system by carrying out the control program that is stored in said memory, said controller being configured to determine a time when a previous downloaded control program can be changed, temporarily store the new control program received through said communications circuit in said buffer, and store the new control program received through said communications circuit and stored in said buffer in said memory so as to be executable by said processor in response to said controller determining the time when the previous control program can be changed or in response to an instruction, wherein both of said previous control program and said new control program are operable to carry out the following events:

a standby event charging the substrate in said boat;

a boat-up event loading said boat in said reactor by raising said elevator;

a ramping-up event gradually raising a temperature in said reactor;

a process event forming a film on the substrate;

a ramping-down event gradually decreasing the temperature;

a boat-down event drawing said boat from said reactor by lowering said elevator; and

a standby event discharging the substrate from said boat;

wherein said controller is further configured to determine that the time at which the control program can be changed is not the process event forming a film on the substrate; and

wherein said controller is further configured to hold prior data that was used to carry out the previous control program so that the prior data is used in carrying out the new control program.

Claim 65 (New)   The semiconductor manufacturing system according to Claim 63, wherein said controller is configured to change the control program while the temperature is in a constant state with the reaction chamber in a standby state.

Claim 66 (New)   The semiconductor manufacturing system according to Claim 63, wherein said controller is configured to change the control program during the standby event for charging the substrate to the boat.

Claim 67 (New)   The semiconductor manufacturing system according to Claim 63, wherein said controller is configured to change the control program during the boat-up event for loading the boat in a reactor by raising an elevator.

Claim 68 (New)   The semiconductor manufacturing system according to Claim 63, wherein said controller is configured to change the control program during a boat-down event for drawing the boat from the reactor by lowering the elevator.

Claim 69 (New)   The semiconductor manufacturing system according to Claim 63, wherein said controller is configured to change the control program during a standby event for discharging the substrate from the boat.